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10/035,315

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Wei Kuang Teng

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40144 7590 04/01/2008  
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EXAMINER

SHIFERAW, ELENI A

ART UNIT

PAPER NUMBER

2136

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/035,315	<b>Applicant(s)</b> TENG, WEI KUANG	
	<b>Examiner</b> ELENI A. SHIFERAW	<b>Art Unit</b> 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1-2 and 4-6 are pending.

#### ***Response to Amendment/argument***

Applicant's arguments filed on 12/26/07 have been fully considered but they are not persuasive.

Applicant's argument regarding the references failure to disclose "user zone is configured to allow a user to execute all ATA commands", remark page 2 last paragraph, argument is not persuasive because Luu et al. discloses data storage in user partition is accessed using an industry standard Interface protocol such as AT Attachment (ATA) interface (see Luu et al. col. 3 lines 40-50) The office action mailed on 09/26/2007 page 3 lines 12-14 discloses this argued limitation as Luu et al. teaches. However the typo (copy/past) error is cancelled as shown below.

Applicant's argument regarding the references failure to teach "assigning one of two different passwords to each of the ROM zone and the protected zone", as recited in claim 1, remark page 3 par. 2, argument is not persuasive because Han et al. discloses partitioning of a hard disc and users passwords set up for partitioned hard disc are also disclosed (see fig. 3 and par. 45 last 3 lines).

Applicant's argument regarding Yamamoto et al. not teaching about partitioning a disk drive into a user zone in combination with a protected zone and/or a ROM zone, remark page 3 par. 3, argument is not persuasive because one cannot show nonobviousness by attacking references individually where the rejections are based on

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combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's argument regarding examiner not providing a specific motivation from the art ..., remark page 4 par. 2-3, argument is not persuasive because the rationale to modify or combine the prior art does not have to be expressly stated in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art. See MPEP 2144

Sources of Rationale Supporting a Rejection Under 35 U.S.C. 103 [R-5] RATIONALE MAY BE IN A REFERENCE, OR REASONED FROM COMMON KNOWLEDGE IN THE ART, SCIENTIFIC PRINCIPLES, ARTRECOGNIZED EQUIVALENTS, OR LEGAL PRECEDENT

The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (setting forth test for implicit teachings); In re Eli Lilly & Co., 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); Ex parte Clapp, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985) (examiner must present convincing line of reasoning supporting rejection); and Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning). MPEP 2144

Sufficient motivation to combine references is/are provided, in the last office action mailed.

Examiner has pointed out particular references contained in the prior art(s) of record in the body of this action for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claims, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the

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applicant, in preparing the response, to consider fully each reference in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

The examiner is not trying to teach the invention but is merely trying to interpret the claim language in its broadest and reasonable meaning. Therefore, the examiner asserts that the system of the prior arts do teach or suggest the subject matter as recited in independent claim 1. Dependent claims are also rejected at least by virtue of their dependency on independent claims and by other reason set forth in this office action dated March 28, 2008. Accordingly, rejections for claims 1-2 and 4-6 are respectfully maintained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Luu et al. USPN 6,691,213 B1 in view of Han et al. USPub. 2005/0015652 A1.

Regarding claim 1, Luu et al. teaches a method for data security with lock in a hard disk and a solid state disk, comprising following steps:

partitioning a single disk drive into a plurality of disk zones (col. 3 lines 30-50, col. 2 lines 39-64, and fig. 2-3) including a user zone (col. 2 line 39; *user area and/or*

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*user's unlimited access to the area*), a ROM zone (col. 3 lines 30-50; *host-protected area*), and a protect zone (col. 2 lines 39-41 and fig. 2-3; *protected area*);

providing a plurality of registers for indicating a record of a size of each of the plurality of disk zones (col. 3 lines 30-67; *protected area 22 LPB = MAX, user area 18 LBA is 0-MAX, management area 54 LBA=-ve*);

utilizing a mathematical operation for treating a user input data and a register data (col. 5 lines 4-67; *LBA size determined/compared*); and

**wherein the user zone is configured to allow a user to execute all ATA commands and the protect zone is configured to prevent a user from reading or writing (col. 3 lines 39-41 and col. 3 lines 40-50).**

Luu et al. fails to disclose assigning one of two different passwords to each of the ROM zone and the protected zone utilizing a password operation mode utilizing the mathematical operation with the user input data and the register data, ~~wherein the user zone is configured to allow a user to execute all ATA commands~~ and the protect zone is configured to prevent a user from reading or writing.

However Han et al. disclose assigning one of two different passwords to each of the ROM zone and the protected zone (par. 45 last 3 lines, abstract and fig. 3 and 2; *partitioning a hard disk... the user setting up passwords for partitions*) utilizing a password operation mode utilizing the mathematical operation with the user input data and the register data (par. 45).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Han et al. with in the

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system of Luu et al. because they are analogous in hard disc partitioning. One would have been motivated to incorporate the teachings of setting up passwords to each partitioned zones because each partitioned hard disk zones would be securely protected.

Regarding claim 2, Luu et al. discloses the method for data security with lock in a hard disk and a solid state disk, wherein the registers are a R\_index register, a P-index register and LBA\_max register for indicating records of three zone size (see fig. 3 and col. 3 lines 30-67 *for different size of registers indexed*).

Regarding claim 4, Luu et al. discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register R\_index.gtoreq.1 and the register LBA\_max>the register P\_index>the register R\_index, the disk drive 1 is divided into three zones, the disk drive is divided into the user zone, the ROM zone and the protect zone (see fig. 3 and col. 3 lines 30-67).

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luu et al. USPN 6,691,213 B1 in view of Han et al. US Pub. 2005/0015652 A1, and further in view of Yamamoto et al. (Yamamoto, US 6,532,513 B1).

Regarding claim 5, Luu et al. and Han et al. teach all the subject matter as described above and the method for data security with lock in a hard disk and a solid state disk (see

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Luu et al. fig. 3 and Han et al. abstract). Luu et al. and Han et al. fail to explicitly disclose wherein when the register  $R\_index \geq 1$  and the register  $LBA\_max = \text{the register } P\_index > \text{the register } R\_index$ , the disk drive is divided into two zones, the user zone and the ROM zone.

However Yamamoto discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register  $R\_index \geq 1$  and the register  $LBA\_max = \text{the register } P\_index > \text{the register } R\_index$ , the disk drive is divided into two zones, the user zone and the ROM zone (col. 12 lines 54-col. 12 lines 15; *LBA\_max and register indexes are compared and disk storage is partitioned into different zone sizes*).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Yamamoto within the combination system because they are analogous in magnetic information/data storage memory (see, Yamamoto fig. 1 element 107 and claim 1). One would have been motivated to do so because it would have different sizes of register indexes (col. 12 lines 54-col. 12 lines 15).

Regarding claim 6, Yamamoto further discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register  $R\_index \geq 1$  and the register  $LBA\_max > \text{the register } P\_index = \text{the register } R\_index$ , the disk drive 1 is divided into two zones, the user zone and the protect zone (col. 12 lines 54-col. 12 lines 15; *LBA\_max and register indexes are compared and disk storage is partitioned into different zone sizes*). The rationale for combining are the same as claim 5 above.



***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Parzych et al. US 5,375,243; *using password to unlock a hard drive for protected data/program is very well known in 1991...1994.*
- b. Gardner Pub. No.: US 2003/0101322 A1: *partitioning a memory to store secure data/program...*

For more prior arts see Form 892 attached.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser R. Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eleni A Shiferaw/  
Examiner, Art Unit 2136  
3/28/08

/Nasser G Moazzami/  
Supervisory Patent Examiner, Art Unit 2136